

Please type a plus sign (+) inside this box



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 2

Complete If Known

Application Number	Unassigned
Filing Date	March 6, 2002
First Named Inventor	Mark James
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	020859-001210US

10/092491
03/06/02

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
MD	1	6,012,152		Douick et al.	01-04-2000	
	2	5,991,525		Shah et al.	11-23-1999	
	3	5,987,399		Wegerich et al.	11-16-1999	
	4	5,950,147		Saragapani et al.	09-07-1999	
	5	5,761,090		Gross et al.	06-02-1998	
	6	5,740,033		Wassick et al.	04-14-1998	
	7	5,661,668		Yemini et al.	08-26-1997	
	8	5,586,066		White et al.	12-17-1996	
	9	5,442,555		Reifman et al.	08-15-1995	
	10	5,408,412		Hogg et al.	04-18-1995	
	11	5,309,448		Bouloutas et al.	05-03-1994	
	12	5,210,704		Husseiny	05-11-1993	
✓	13	5,099,436		McCown et al.	03-24-1992	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁴
		Office ³	Number ⁴	Kind Code ⁵ (if known)				

Examiner Signature		Date Considered	11/8/05
-----------------------	--	--------------------	---------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PA 3204698 v2

Please type a plus sign (+) inside this box → +

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO <h2 style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <p style="text-align: center;">(use as many sheets as necessary)</p>		Complete if Known <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>Unassigned</td> </tr> <tr> <td>Filing Date</td> <td>March 6, 2002</td> </tr> <tr> <td>First Named Inventor</td> <td>Mark James</td> </tr> <tr> <td>Group Art Unit</td> <td>Unassigned</td> </tr> <tr> <td>Examiner Name</td> <td>Unassigned</td> </tr> <tr> <td>Attorney Docket Number</td> <td>020859-001210US</td> </tr> </table>		Application Number	Unassigned	Filing Date	March 6, 2002	First Named Inventor	Mark James	Group Art Unit	Unassigned	Examiner Name	Unassigned	Attorney Docket Number	020859-001210US
Application Number	Unassigned														
Filing Date	March 6, 2002														
First Named Inventor	Mark James														
Group Art Unit	Unassigned														
Examiner Name	Unassigned														
Attorney Docket Number	020859-001210US														
Sheet	2	of	2												

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
MD	14	BROTHERTON and Mackey, "Anomaly Detector Fusion for Advanced Military Aircraft," The 2001 IEEE Aerospace Conference, Big Sky, Montana, March 2001.	
	15	COLGREN et al. "Technologies for Reliable Autonomous Control (TRAC)," IASTED '99 Control and Applications Conference, Banff, Canada, July 1999.	
	16	FUKUNAGA et al. "Toward an Application Framework for Automated Planning and Scheduling," Proceedings of the International Symposium on Artificial Intelligence, Robotics, and Automation for Space, Tokyo, Japan, July 1997.	
	17	JAMES AND ATKINSON "Software for Development of Expert Systems," NASA Tech Briefs, Vol. 14, No. 6, June 1990.	
	18	JAMES AND DUBON "An Autonomous Diagnostic and Prognostic Monitoring System for NASA's Deep Space Network", The 2001 IEEE Aerospace Conference, Big Sky, Montana, March 2001.	
	19	MEYER et al. "The Application of Neural Networks to the SSME Startup Transient," AIAA paper 91-2530 27th Joint Propulsion Conference (1991).	
	20	SCHAEFER et al., "Technologies for Reliable Autonomous Control (TRAC) of UAVs," The 2001 IEEE Aerospace Conference, Big Sky, Montana, March 2001.	
	21	TAKEN "Detection Strange Attractors on Turbulence" and "Dynamical Systems and Turbulence," <u>Lecture Notes in Mathematics</u> , Vol. 898 (Warwick 1980), Springer-Verlag.	
	22	WHEELER et al. "SSME Sensor Modeling Using Radial Basis Function Neural Networks," J. of Spacecraft and Rockets 31:1054-1060 (1994).	
	23	ZAK "Physical Models of Cognition," Int. J. of Theoretical Physics 33:1113-1161 (1994).	
	24	ZAK "Postinstability Models in Dynamics," Int. J. of Theoretical Physics 33:2215-2281 (1994).	

Examiner Signature		Date Considered	11/8/05
--------------------	--	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.
PA 3204698 v2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 1

Complete if Known

Application Number	10/092,491
Filing Date	March 6, 2002
First Named Inventor	Mark L. James
Art Unit	2184
Examiner Name	Unassigned
Attorney Docket Number	020859-001210US

U.S. PATENT DOCUMENTS

Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
MD 1	1	US-6,415,276	07-02-2002	Heger et al.	
	2	US-6,331,835	12-18-2001	Gustafson et al.	
	3	US-6,310,626	10-30-2001	Walker et al.	
	4	US-6,285,971	09-04-2001	Shah et al.	
	5	US-6,249,755	06-19-2001	Yemini et al.	
	6	US-6,202,033	03-13-2001	Lange	
	7	US-5,884,773	01-26-1999	Bama et al.	
	8	US-5,805,447	09-08-1998	Teng et al.	
	9	US-5,060,132	10-22-1991	Beller et al.	
	10	2002/0040278	04-04-2002	Anuzis et al.	

RECEIVED

NOV 19 2002

Technology Center 2100

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁴
		Country Code ³	Number ⁴ Kind Code ⁵ (if known)				

Examiner
Signature

[Handwritten Signature]

Date
Considered

11/8/05

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

PA 3256066 v1

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

Application Number	10/092,491
Filing Date	March 6, 2002
First Named Inventor	Mark L. James
Art Unit	2184
Examiner Name	Unassigned
Attorney Docket Number	020859-001210US

U.S. PATENT DOCUMENTS

Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
MD	AA	US-5,465,321	11/7/95	Smyth	
	AB	US-5,555,444	9/10/96	Diekelman et al.	
	AC	US-5,590,395	12/31/96	Diekelman	
	AD	US-5,799,154	8/25/98	Kurlyan	
	AE	US-5,819,226	10/6/98	Gopinathan et al.	
	AF	US-6,012,152	1/4/00	Douik et al.	
	AG	US-6,321,338	11/20/01	Porras et al.	
	AH	US-			
	AI	US-			
	AJ	US-			
	AK	US-			
	AL	US-			
	AM	US-			
	AN	US-			
	AO	US-			
	AP	US-			
	AQ	US-			
	AR	US-			
	AS	US-			
	AT	US-			

RECEIVED

JUL 18 2002

Technology Center 2100

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴ Kind Code ⁵ (if known)				
	AU						
	AV						
	AW						
	AX						
	AY						
	AZ						
	BA						
	BB						

Examiner
SignatureDate
Considered

11/8/05

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PA 3235066 v1

Please type a plus sign (+) inside this box → ☐

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

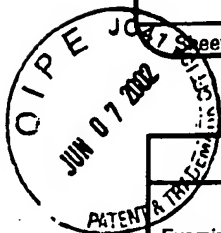
INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	10/092,491
Filing Date	March 6, 2000
First Named Inventor	James, Mark L.
Group Art Unit	2184
Examiner Name	Unassigned
Attorney Docket Number	020859-001210US

Sheet 3 of 3



OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
MD	BC	JOHN R. TAYLOR, An Introduction to Error Analysis, The Study of Uncertainties in Physical Measurements, University of Science Books, Oxford University Press, title page and three pages of contents	
MD	BD	JOHN HERTZ ET AL., Introduction to The Theory of Neural Computation, Santa Fe Institute Studies in the Sciences of Complexity, Lecture Notes Volume I, title page and three pages of contents, Addison-Wesley Publishing Company	
MD	BE	JIE CHEN ET AL., Robust Model-Based Fault Diagnosis for Dynamic Systems, 1999, title page and 6 pages of contents, Kluwer Academic Publishers, Boston/Dordrecht/London	
MD	BF	GEORGE E. P. FOX, ET AL., Time Series Analysis, Forecasting and Control, title page and 11 pages of contents, Third Edition, Prentice Hall, Englewood Cliffs, New Jersey 07632	
	BG		
	BH		
	BI		
	BJ		
	BK		
	BL		
	BM		

Examiner Signature		Date Considered	11/8/05
--------------------	--	-----------------	---------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.
PA 3226048 v1